

A Report to the Montana Legislature

# Performance Audit

# Statewide Radio Communications Interoperability

The Office of the Governor
The Department of
Administration
The Statewide Interoperability
Executive Advisory Council

January 2009

Legislative Audit Division

08P-03

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Members of the performance audit staff hold degrees in disciplines appropriate to the audit process. Areas of expertise include business and public administration, journalism, accounting, economics, sociology, finance, political science, english, anthropology, computer science, education, international relations and security, and chemistry.

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January 2009

The Legislative Audit Committee of the Montana State Legislature:

This is our performance audit of statewide radio communications interoperability overseen by the State Interoperability Executive Advisory Council in partnership with the Interoperability Montana Project Directors. This report provides the Legislature information about the ongoing development of the project. This report presents program and legislative issues impacting the project and includes recommendations for promoting the success of the project. A written response from the Department of Administration and the Office of the Governor is included at the end of the report. A written response from the Interoperability Montana Project Directors is also included.

We wish to express our appreciation to all project participants for their cooperation and assistance throughout the audit.

Respectfully submitted,

/s/ Tori Hunthausen

Tori Hunthausen, CPA Legislative Auditor

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# **APPOINTED AND ADMINISTRATIVE OFFICIALS**

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**Interoperability Montana Project Directors** 

Kevin Bruski, Executive Director

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Joe Brenneman, First Vice-Chair

Sheriff John Walsh, Second Vice-Chair

#### **REPORT SUMMARY**

# Statewide Radio Communications Interoperability

The development of a statewide interoperable radio communication system in Montana would be aided by establishing a system in statute, developing state agency migration plans, and promoting operational best practices for the system.

#### Introduction

Communications interoperability - also referred to as compatibility or connectivity - refers to the capability of different electronic communications systems to readily connect with each other and thus enable timely communications. Timely communications, often via wireless radios, are vital to the effectiveness and safety of first responders and their supporting agencies, as well as the safety of the public at large. When communications systems are interoperable, police, firefighters, and other public safety officials responding to a routine incident or catastrophic accidents can talk to each other to coordinate efforts and work effectively together. In Montana, the current effort to develop a statewide interoperable radio communication system is known as Interoperability Montana (IM).

# **Audit Findings**

Analysis of statewide interoperable radio communication systems in other states indicates the development of the IM project is unique. In contrast to the IM project, most other states have assigned the development and oversight of a statewide interoperable radio communication system to a state agency. The IM project was initially developed through

<u>IM Funding</u>	
As of November 20	በጸ

AS OF NOVERIBEE 2000			
Source	Amount	Percentage	
Local and Tribal	\$849,500	1%	
State	15,177,484	27%	
Federal	41,554,328	72%	
Total Funding	\$57,581,312	100%	

Source: Compiled by the Legislative Audit Division from Interoperability Montana records.

partnership of governments across Montana, including representation from all 56 counties. However, participation in the project is voluntary. Presently, there several stakeholders are radio communication with infrastructure at the local and state level which have chosen not to participate. Establishing a statewide communication system in statute and defining

the participation of local, state, and federal stakeholders would aid in the ongoing success of a statewide interoperable radio communication system. In addition, developing formal state agency migration plans would coordinate state resources relative to the system.

Approximately \$60 million has been leveraged for the IM project from local, state, and federal sources. Current estimates place the overall costs to build the system between \$100 and \$150 million within the next decade. Project emphasis has been primarily focused on infrastructure construction. However, there are also several operational issues which have received little attention and could promote the success of a statewide interoperable radio communication system. Issues include: a business planning process for long-term financial viability, asset inventory and management, and organizational staffing.

#### **Audit Recommendations**

Audit recommendations address the need to establish a statewide interoperable radio communication system in statute and also define the participation of local, state, and federal partners. Recommendations also address several operational issues to promote the long-term success of a statewide interoperable radio communication system. Audit recommendations are directed to the Department of Administration, the Governor's Office, and the Statewide Interoperability Executive Advisory Council. Audit recommendations include:

- Establishing a statewide interoperable radio communication system in statute.
- Developing a formal migration plan to coordinate the resources of state agencies relative to a statewide interoperable radio communication system.
- Adopting a formal business planning process, operational best practices for asset management, and a long-term staffing plan for a statewide interoperable radio communication system.

# Chapter I – Introduction

#### Introduction

Communications interoperability—also referred to as compatibility or connectivity—refers to the capability of different electronic communications systems to readily connect with each other and thus enable timely communications. Timely communications, often via wireless radios, are vital to the effectiveness and safety of first responders and their supporting agencies, as well as the safety of the public at large.

Facilitating interoperability has been a policy concern of public safety officials for many years, at both the state and national level. Recognizing the need for a statewide interoperable radio communication system, public safety officials in all fifty-six counties, seven Tribal Nations, and other state and federal partners in Montana banded together to form nine regional consortia. These consortia committed to design and build a statewide interoperable radio communication system. Known as Interoperability Montana (IM), this effort is currently in the construction or "build out" phase of the development, with one demonstration project complete and a second expected to be completed by the end of 2008. Since IM project participants commonly utilize the term "build out" to refer to the construction phase of the project, throughout the report we use the two terms interchangeably.

# Why Communications Interoperability Is Important

The events of 9/11 and the recent Gulf Coast hurricanes, and the subsequent communication challenges faced by first responders, renewed local and national interest in the importance of a shared process for communicating during times of disaster or emergency. The development of a statewide interoperable radio communication system in Montana is important from several points of view. At the moment, there are multiple radio communication systems utilized across the state by public safety officials, such as sheriffs and firefighters. Due to the fact that local jurisdictions generally own and operate radio communications independently, there is limited communications interoperability between public safety officials. When public safety officials are unable to effectively communicate with each other, the lives of the public and responder are placed at greater risk.

The IM project most likely represents the largest technology project in Montana in recent history. Current estimates place the overall costs to build the system between \$100 and \$150 million. To date, approximately \$60 million has been allocated to the project from local, state, and federal sources. The majority of funding has come from federal grants. However, approximately 25 percent of current funding represents either legislative appropriation to the Department of Administration for the project or to state

agencies working to improve communications functionality. Considering the overall project estimate, the state could potentially expend approximately \$40 million during the construction phase of the project. And while local consortia have been successful with the construction of the project to date, the future of the project is uncertain and has evolved to the point of requiring statewide attention. We determined it was time to examine the project and inform the legislature of the status of the project. The purpose of our examination is to highlight the significant nature of the project, the work done to date, and the issues to be considered in achieving a statewide interoperable radio system.

# **Audit Objectives**

We developed three objectives for examining the IM project:

- Determine if the proposed governance structure for IM provides accountability over the management of the project.
- Examine if IM has addressed project operational issues.
- Determine if IM has adopted a long-term approach likely to result in the successful operation and continuing financial sustainability of the project.

# **Audit Scope and Methodologies**

An audit assessment of Montana's Homeland Security programming highlighted statewide radio communications as crucial in a natural disaster or other public safety emergency. Audit scope focused on the IM project, including issues of governance, business planning, and long-term funding. Through audit assessment work, we limited our examination of the project to activities taking place from around calendar year 2001 and onwards. While the IM project consists of efforts to build both voice and data communication systems, we excluded data systems. Due to the technical nature of the project, we excluded any assessment of the system design or functionality. To further define the scope of the audit, we also excluded contracting and procurement issues from our examination of the project. To accomplish our audit objectives, we completed the following methodologies:

- Reviewed laws, rules, and policies relative to statewide interoperable radio communication systems.
- Reviewed the development of the IM governance structure and interviewed Interoperability Project Board Director (IMPD) members and other project stakeholders.
- Reviewed proposed changes to the organizational structure of IM.
- Examined asset information of the IM project to compile an inventory of current state radio communications equipment and infrastructure.
- Reviewed the development of statewide interoperable radio communication systems in other states and interviewed their project staff.

- Reviewed federal guidance and best practices relative to interoperable radio communications.
- Assessed participation of state agencies in IM project.
- Obtained and analyzed radio licensing information for Montana from the Federal Communications Commission.
- Identified and reviewed funding of IM project to date and reviewed the IM business planning process.

# **Report Contents**

The remainder of this report includes a background chapter followed by chapters detailing our findings, conclusions, and recommendations in the following areas:

- Chapter III presents information on project governance and participation.
- Chapter IV addresses the participation of state agencies in the IM project.
- Chapter V examines issues to promote the long-term success of the project.

# Chapter II - Project Background

#### Introduction

Communications interoperability specifically refers to the ability of emergency response officials to share information via voice and data signals on demand, in real time, and when needed. When communications systems are interoperable, police, firefighters, and other public safety officials responding to a routine incident or catastrophic accidents can talk to each other to coordinate efforts and work effectively together. It allows emergency response personnel to maximize resources in planning for disaster relief and recovery efforts. Without effective communications interoperability, primarily accomplished through wireless radio systems, public safety efforts are compromised and lives placed at risk.

This chapter provides background information on radio system technology, a brief history of radio communications in Montana, the development of the Interoperability Montana (IM) project, the involvement of the State of Montana in IM, the status of the IM project infrastructure, and IM project funding.

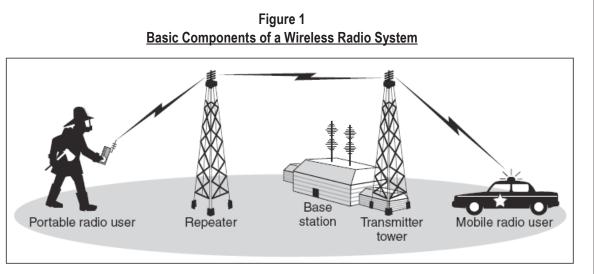
# Why Communications Interoperability Now

While the development of a statewide interoperable radio communication system has been discussed for a number of years in Montana, there are several reasons why the IM project is currently taking place.

- At present, there are multiple independent existing radio communication systems owned and operated by local and state participants. Generally 20 to 30 years old, these aging systems present a risk to the public, due to the fact that they are unable to communicate with each other.
- The technology to achieve a statewide interoperable radio communication system is now available.
- In an effort to more efficiently utilize existing radio frequency channels, the Federal Communications Commission (FCC) has mandated upgrades in radio technologies to allow for the use of narrowband channels.
- Post 9/11, there have been significant resources available from the federal government to allow states to develop statewide interoperable radio communications systems.

# Radio System Technology Basics

Wireless radio systems are the primary means of communications among public safety personnel. These systems typically consist of handheld portable radios, mobile radios, base stations, and repeaters. The following figure illustrates the basic components of a wireless radio system.



Source: Compiled by the Legislative Audit Division and reproduced from Government Accountability Office report.

Radio systems are classified as either conventional or "trunked." Conventional radio systems have dedicated frequencies (channels) assigned to individual groups of users. When a user makes a call, other members of the group cannot use the channel until the call is over. In contrast, trunked systems allocate pools of channels for use by multiple individuals. When a call is made by a user on a trunked system, an available channel is automatically selected from the pool of channels, leaving the remaining channels available for others. The IM project is moving towards a trunked system, which is considered to be a more efficient means of using available radio spectrum resources.

# **Shared Versus Independent**

In addition to the increased efficiency of a trunked system, the development of a statewide interoperable radio communication system is also about the use of a single system, rather than multiple independent systems which are unable to communicate with each other. A concern shared around the nation is the fact that the first responders have generally developed radio communication systems independently and impeded interoperable communications. The IM project is working toward a shared system whereby all public safety officials can effectively respond to a disaster or public safety emergency together rather than apart.

# Montana Radio Communication History

The concept of a statewide interoperable radio communication system has been discussed in Montana for over 20 years. Local, tribal, state and federal first responders have historically developed independent radio communication systems without regard to other agencies or neighboring jurisdictions. There have been two significant attempts

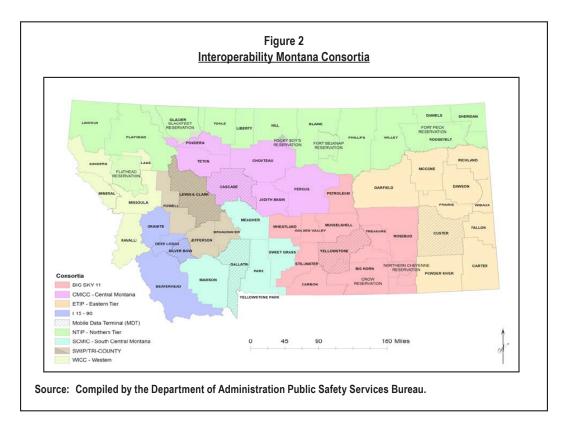
in the past to create a statewide interoperable radio communication system in Montana. Most notably, in the 1990s, the State of Montana along with first responder agencies such as fire and law enforcement agencies developed the State of Montana Mutual Aid and Common Frequency Plan. This plan established 14 mutual radio frequencies and five common frequencies to be utilized during interagency emergencies. Currently, most federal, state, tribal, and local agencies in Montana have limited interoperability utilizing the plan. The plan works well for localized incidents, but falls short for large-scale emergencies or disasters. A second attempt at developing a statewide radio system occurred in the mid-to-late 1990s. Several studies were completed that identified state and local resources, assessed needs, and developed draft proposals. However, due to funding and governance issues, the system never became a reality.

# **Interoperability Montana Project**

Interoperability Montana (IM) is an effort to create a statewide interoperable radio communication system in Montana addressing all response levels. While most other states have tasked an agency of state government to develop and administer a radio communication system, the system in Montana is described by participants as a grassroots effort, rather than a top down approach. Officials from local and tribal government have gathered together and formed nine regional consortia covering the state, collectively representing all 56 Montana counties and seven Tribal Nations. Joining the IM project are additional partners at the state and federal level. The mission of the IM project is to create a Montana-Wide, state of the art public safety voice and data interoperability communications systems

# Consortia Development

The consortia development initially started in 2003 with grant funds from the Department of Homeland Security (DHS) made available to states and localities for communications interoperability improvements. Rather than individually applying for DHS funds, counties banded together around the common need of interoperability as a means to leverage those DHS resources and loosely formed regional consortia comprised of several counties. Each consortium acted as a subgrantee to receive DHS funds awarded to the state of Montana. Local representation from the county and tribal level came together, forming into eight voice consortia, representing 56 counties and seven Tribal Nations. In addition, a ninth consortium was created to facilitate the development of an interoperable mobile data system. Each consortium is represented by a board of directors made up of county commissioners, and chief elected and appointed law enforcement. Membership is voluntary and any locality may withdraw. Each consortium has bylaws defining membership and procedures. Utilizing DHS funds, counties within each consortium collaborated on needs assessments of interoperability in their regions. The following figure provides an illustration of the consortia.



Those consortia members in turn elected a project director from each region. By the end of 2005, project directors from each local consortium came together via a Memorandum of Agreement (MOA) and formed the Montana-Wide Communications Interoperability Consortium Project Directors for the purpose of implementing a statewide communications interoperability plan. Ultimately, the name Interoperability Montana Project Directors (IMPD) began to be used to describe this group of regional project directors. The MOA tied the consortia together in a way which allowed for a formal structure to spend DHS funds. The MOA outlined the IMPD with the authority to receive DHS funds on the behalf of the local consortia. The IMPD acts as a subgrantee receiving DHS funds awarded to the state of Montana for the purpose of interoperable radio communications. The IMPD serves as the operational governing group for the IM project.

# Consortia Success in Lewis and Clark County

As part of the consortia development, an early component of the IM project focused on Lewis and Clark County. This component formed the basis of the first concept demonstration project for the IM system. It began operations in 2005 and phased in county user agencies through the summer of 2006, when it became operational county-wide. The system was originally engineered to accommodate about 400 users. Now, over 2000 users are on it. The IMPD report they are applying the lessons learned and experience gained from this first interoperability project in the state as the IM project advances to other parts of Montana.

# Montana Interlocal Cooperation Act

In 2007, each local consortium took an additional step to formalize their collective partnerships and counties established interlocal agreements, via the Montana Interlocal Cooperation Act, section 7-11-101, MCA. Interlocal agreements are common in the state; they are often utilized by counties to come together around a common cause or need, such as waste disposal services.

#### An Association of Governments

Establishing interlocal agreements was done not only as a means to formalize agreements between counties to form regional consortia, but also as an additional step for the IMPD ultimately to bring together all local, state, and Tribal partners within an independent administrative structure. After formal interlocal agreements were in place, the IMPD banded together via existing statute aimed at the operation and conduct of county government outlined in part, in section 7-5-2141, MCA, which allows county commissioners to take out membership and cooperate with associations and organizations of other counties for mutual interests. The IMPD characterize the current structure as "an association of governments." Most recently, the IMPD hired an executive director to oversee the build out and administration of the project.

#### **State Government Involvement**

State government has been involved in the development of the IM project on a number of different levels, including providing both administrative and policy support. State government is also involved from an operational perspective. While localities comprise the majority of the IMPD, several state agencies have been extended membership on the IMPD.

# The Statewide Interoperability Executive Advisory Council

From a policy perspective, the IM effort is guided by the Statewide Interoperability Executive Advisory Council (SIEC), a governor-appointed statewide policy-level body. The SIEC was promulgated by Executive Order 39-2008 and the group subsequently established a technical standard and definition for interoperability which the IMPD has adopted. While not a specific federal requirement, DHS strongly encourages states establish statewide interoperable communication governance bodies. The SIEC fulfills this role in Montana.

# **State Administrative Support**

From an administrative perspective, the Department of Military Affairs (DMA) acts as the State Administrative Agency responsible for overseeing DHS grants. Specifically, the Division of Disaster and Emergency Services (DES) located within DMA administers those resources. DMA houses the State Emergency Response Commission, a governor appointed commission responsible for Montana's Disaster and Emergency Coordination Plan. A Committee of that Commission, the Senior Advisory Committee, develops Montana's Homeland Security Strategic Plan and makes decisions on DHS grant submissions and priorities and is responsible for all grant requirements and progress reports. The number two goal of Montana's Homeland Security Strategic Plan is the establishment of a statewide interoperable radio communication system.

Within the Department of Administration (DOA), the Public Safety Services Bureau (PSSB) manages statewide planning of public safety communications. DOA receives Legislative appropriation for the IM project. PSSB supports the governor-appointed SIEC. In May of 2005, PSSB and DES invited local consortia to collectively band together around the issue of radio interoperability. At this point, counties had already formed the local consortia around the state. PSSB provided assistance to the local consortia in developing and formalizing local bylaws and governance structures, outlining the selection of local members and a regional project director.

# Communication Interoperability Crosses State and International Borders

The need for communications interoperability is not confined by geographical borders. Public safety disasters and emergencies often happen within or near multiple local, state, and international jurisdictions. Consequently, it is important to work to coordinate the efforts of those multiple partners. Over the course of the development of the IM project, the IMPD and PSSB have coordinated build out efforts with neighboring states and Canada. The IM project plans to work with neighboring jurisdictions to provide the most effective public safety response in times of disaster or emergency.

# **State Agency Participation**

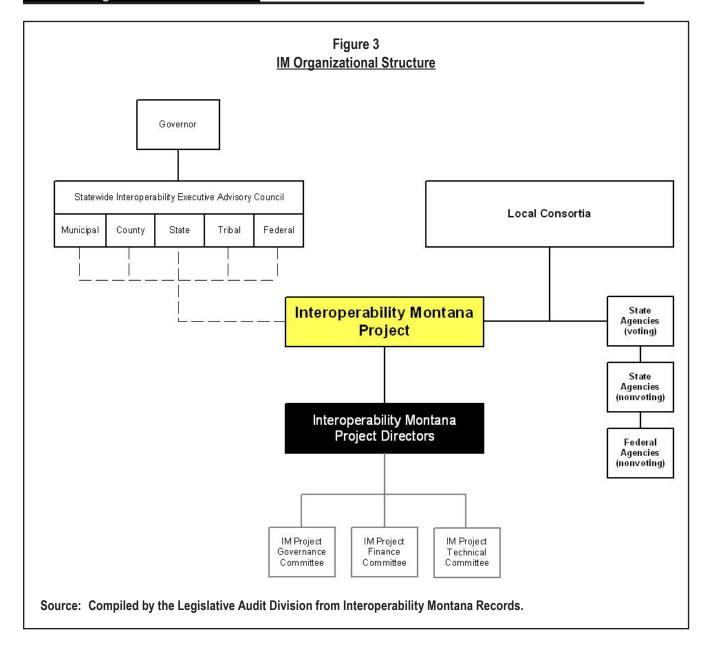
Initially, the inclusion of state agencies with significant communication infrastructures was an informal part of the IMPD. State agencies with significant communication infrastructure include: the Department of Justice, Montana Highway Patrol (MHP), the Department of Transportation (MDT), and the Department of Natural Resources and Conservation (DNRC). The Department of Corrections (DOC) also became involved, but as part of the Tri-County Interoperability Consortium (TIC), which includes Broadwater, Jefferson, and Powell Counties. The rationale for DOC to be included with the TIC centered on the fact that DOC does not have a communications infrastructure of its own and relies on local communications as part of its mission. Several other state agencies also utilize communications equipment as part of their agency functions.

Ultimately, recognizing the impact and scope of state agency communication resources, the IMPD extended membership to the three state agencies with significant communication infrastructures. In November 2006, the IMPD voted to extend voting membership to three state agencies: MHP, MDT, and DNRC. Nonvoting state agency members of IMPD include: PSSB, DES, and the Montana National Guard. Each participating state agency has designated an employee to represent the agency on the IMPD. At present, state agencies are at various levels of participating in the project.

#### Other Partners

The IMPD has also developed a number of formal and informal agreements with other partners across the state. The IMPD has established a MOU agreement with the federal Department of the Interior (DOI) to work on shared communication issues such as site sharing and system utilization. The United States Air Force (USAF) is also interested in utilizing the IM system to disseminate data and voice information to field personnel and has provided equipment.

To date, the seven Tribal Nations in Montana have been involved in the consortia development on an informal basis; the IM group is currently working to establish formal agreements with those Nations via the State-Tribal Cooperative Agreements Act located in Title 18, Chapter 11, MCA. The following figure illustrates the current IM organizational structure.



# **IM Project Infrastructure to Date**

The IM project is currently developing communications infrastructure across the state, often referred to as the construction or build out stage. This infrastructure includes some construction to improve the reliability of radio transmission sites, such as improving building and/or tower facility conditions, building towers and repeaters, and establishing backup power. Other tasks include developing trunked radio coverage for use by local, tribal, state and federal partners and establishing a microwave system to connect sites. Appendix A of this report includes a map of current IM sites and the microwave path across the state.

The IM project plans to build on the successes of two concept demonstrations projects, to create a system to link voice and data systems used by federal, tribal, state, local, and private sector public safety responders. Concept Demonstration Project I (CDP I) was completed in Lewis and Clark County and established an eleven-site system, with a regional Master Control Site located at the county law enforcement center. The Master Control Site is the technical hub of operation for the CDP I and will ultimately support the IM system statewide. Concept Demonstration Project II (CDP II), with the Northern Tier Interoperability Consortium, is currently under development. DOA's Information Technology Services Division (ITSD) has managed legislative appropriation for the Northern Tier portion of the IM project. CDP II will build off the CDP I system and link to an additional 23 radio sites along the Montana Highline. In addition, several sites have also been constructed in Gallatin County. These demonstration efforts are to become part of the IM system. The IMPD expects the build out of the project to be completed within the next five to ten years.

# **IM Project Funding**

The construction phase of the IM project has been funded though a number of sources. The majority of funding has come from federal grants. Approximately \$40 million in federal grants have been used for interoperable communications in Montana since 2001. In addition, the Montana Legislature has appropriated approximately \$15 million in general funds since 2005 to state agencies for the project. Additional sources of funding include cooperative agreements with various federal agencies and local contributions. Total project funding for the IM project though fiscal year 2008 is approximately \$60 million from local, state, and federal sources. The following table represents the various funding sources for the IM project to date compiled from a financial contractor utilized by the IMPD. As such, there may be additional legislative appropriations to state agencies not included.

Table 1

IM Funding
as of November 2008

Funding Source	Funding Amount	Percentage of Funding
State Legislative Appropriations to DOA ITSD	\$8,549,476	15%
State Legislative Appropriations to State Agencies	6,628,008	12%
Federal Homeland Security Grants to DES	27,847,579	48%
Other Federal Grants*	12,007,957	21%
Federal Agency In-Kind	1,698,792	3%
Local and Tribal In-Kind	849,500	1%
Total Funding	\$57,581,312	100%

<sup>\*</sup>Represents diverse federal grant sources for communications interoperability, excluding Federal Homeland Security grants.

Source: Compiled by the Legislative Audit Division from a financial contractor utilized by the Interoperability Montana Project Directors.

Project expenditures generally represent costs such as equipment assessment and upgrade, new equipment, project management, financial and legal services, engineering

Table 2

IM Project Allocations
as of November 2008

Total Expenditures	\$59,423,973
Administration and Operations	2,260,052
Project Management	5,153,592
Subscriber Units (radios)	6,082,549
Trunking	17,929,244
Microwave	13,504,595
Infrastructure	\$14,493,941

Source: Compiled by Legislative Audit Division from Interoperability Montana records.

and architectural services, and administrative expenses. The following table represents the IM project allocations as of November 2008.

# Future IM Funding

The construction phase of the project has been funded as of November 2008 with the IMPD

leveraging numerous local, state, and federal resources to improve interoperable communications in Montana. While future funding for the construction phase is uncertain and to some extent outside the control of the IMPD, we expect they will continue to seek project funding to ultimately complete the project. The availability of funding will affect the timeline of the IM project.

However, once the project is complete there will be ongoing costs to operate and maintain the system. Only recently has the IMPD given attention to the ultimate operation and maintenance of the system. The IMPD can and should begin to actively plan for these costs. With the completion of the CDP I, there are already operation and maintenance costs for the system which should be examined by the IMPD to plan for ongoing system-wide costs. The IMPD needs to begin to plan how to financially operate the system beyond the construction of the project. Chapter V of this report examines several issues to promote the success of the IM project, including the long-term operation and maintenance of the IM system.

# Chapter III – Statutory Governance and Defined Participation

#### Introduction

This chapter presents project governance and participation issues impacting the development of the Interoperability Montana (IM) project. The first portion of the chapter presents our findings related to statutory authority in Montana regarding a statewide interoperable radio communication system. The second portion of this chapter presents our findings related to the current membership and participation in the IM project. The end of this chapter presents our recommendation regarding establishing a statewide interoperable radio communication system in statute and defining membership and participation in the system.

#### Statewide Radio Mandates in Montana

From a policy perspective, the IM project is guided by the Statewide Interoperability Executive Advisory Council (SIEC), a governor-appointed statewide council which provides direction in matters related to approaches to develop a statewide interoperable radio communications system in Montana. In 2004, the SIEC was promulgated by executive order. Most recently, the SIEC was renewed by Executive Order 39-2008. The group subsequently established a technical standard and definition for interoperability which the Interoperability Montana Project Director's (IMPD) has adopted. The IMPD is the operational entity for the IM project. The SIEC established the goal to build a statewide interoperable radio communication system for public safety in Montana, with the IMPD designated as the group to assist for implementing the vision of the SIEC. While the project build out is guided by the SIEC interoperability definition and technical standards, the SIEC is not actively involved in the project. In accordance with grant guidance, the Department of Homeland Security (DHS) strongly encourages states establish statewide interoperable communication governance bodies. The SIEC fills this role in Montana.

The Montana Technology Information Act, section 2-17-504, MCA, includes provisions related to the coordination of land mobile public safety radio frequencies by the Department of Administration (DOA). The Department is designated as the state contact agency with the Federal Communications Commission (FCC) for the coordination of land mobile public radio safety frequencies. As part of that designation, DOA is responsible for the development of a land mobile public safety radio frequency plan to assist the FCC in the coordination of land mobile public safety radio frequencies. To date, DOA has worked in conjunction with the IMPD to manage frequencies.

There are also statutory provisions regarding the role of the Department of Military Affair's Division of Disaster and Emergency Services (DES) in statewide communications during the time of an emergency or disaster. According to section 10-3-106, MCA, DES is responsible, in cooperation with DOA, for considering and evaluating a comprehensive statewide communications system. Additionally, DES is responsible for assisting local jurisdictions in developing communications systems which compliment a statewide system.

In order to connect federal, state, county, and city law enforcement agencies, the attorney general is authorized to establish a teletypewriter communication system. According to section 44-2-301, MCA, the attorney general is further authorized to bring into the teletype network any department of state government or its subdivisions outside of law enforcement activities when inclusion will materially aid the law enforcement agencies of the state of Montana or its subdivisions in the fight against crime.

The Montana Homeland Security Strategy plan which is prepared by the Department of Military Affairs (DMA) and approved by the Governor serves to identify strategic direction for enhancing local, tribal, regional, and state capability and capacity to prevent and reduce Montana's vulnerability from Weapons of Mass Destruction (WMD) terrorism incidents and prepare, respond, and recovery from all-hazard disaster incidents. According to the plan, Montana's vision is to build local and regional capabilities that support regional and statewide homeland security initiatives by effectively working in a multi-disciplinary manner to detect, mitigate, prepare for, respond to and recover from a WMD terrorism and all-hazard incident. The plan establishes a statewide interoperable radio communication system as its number two goal.

# Statewide Radio Communications Interoperability Not Statutorily Defined

At present, there is a limited legal framework in Montana relating to the development of a statewide interoperable radio communication system. Aside from the Executive Order which established the SIEC and limited statutory references, there is no legal basis or guidance for the development of the IM project. While the Executive Order does provide a technical standard, a definition of interoperability which the IMPD has adopted, and identifies the IMPD as a partner in the development of communications interoperability, there is no formal legislative directive to implement the development of a statewide radio communication system and it governance.

# Other States Have Defined Statewide Radio Communication Systems

Communications interoperability is an issue being actively pursued in other states. Some states allow state agencies to voluntarily join statewide interoperable radio communications systems while others have mandated participation via legislation or by other informal means. Those states with statutory mandates appear to have formally established the development of a radio communication system as a matter of statewide policy. Several states have utilized statutory mandates which define radio communication systems.

- The Colorado Legislature created the Public Safety Communications Trust Fund in 1998 to be used for the acquisition and maintenance of public safety communication systems for use by departments of state government. In addition, the law directs the state to adopt standards for a statewide interoperable radio communications system for all units of government called upon to respond to a disaster or public safety emergency.
- In 2005, the Oregon Legislature passed a law to build a statewide interoperable radio system. The law established as statewide policy the intent to develop, finance, maintain and operate a single emergency response wireless communications infrastructure that supports both the communications needs of all state agencies and ensures communications interoperability among all state, local, tribal and federal public safety agencies.
- In 1999, the South Dakota Legislature directed state agencies to integrate their radio telecommunications functions and facilities into a cohesive network.
- In 1997, the Utah Legislature created the Utah Communication Agency Network (UCAN). The legislation set forth the creation, administration, and maintenance of UCAN to provide public safety communications services and facilities on a regional or statewide basis for the benefit and use of public agencies and state and federal agencies.

# Current Legal Framework Does Not Define Participation

There is no Montana requirement or expectation for local and state agencies to participate in the IM project. Nor does the IM project plan for the inclusion of existing legacy communication systems within the future IM system. For example, the City of Billings developed and built a radio communication system with a different technology platform several years prior to the development of the IM project. Consequently, the Billing's system technology is incompatible with the technology standard which guides the IM project. At present, the City is not an active participant in the IM project. The IMPD plans to work with the city. Since participation is voluntary, localities may also withdraw from the IM project at any point. Currently, both Fallon and Prairie Counties are considering withdrawing from the project, citing reasons of an inequitable distribution of resources across the state and unnecessary functionality provided by the IM project. Likewise, participation in the system is voluntary for state agencies.

# IM Project May Not Be Interoperable

There are stakeholders with significant communications infrastructures both at a state and local level who have chosen to not participate in the IM system build out for various reasons. Without an authority beyond the existing Executive Order to include all participants in the IM project, the proposed IM system runs the risk of becoming a statewide system which maintains the status quo (does not achieve interoperability) and provides a limited ability for state and local agencies to respond effectively to a public safety emergency.

# Legislative Authority Should Establish Montana's Statewide Interoperable Radio System

Despite the ambiguity of the project, IM participants should be credited for successfully bringing together all 56 counties and seven tribal nations to collectively leverage resources toward the goal of a statewide interoperable radio communication system. However, at present, there is no statutory authority which outlines the development of a radio communication system in Montana. As there already exists statutory provisions for radio communications, amending existing statutes to formally establish a statewide interoperable radio communication system could provide the formal authority to continue with the current build out process.

# **IMPD** Membership Not Formalized

The current composition of the IMPD includes 12 voting members, with state agencies having three votes and localities representing regional consortia having nine. Voting member state agencies include: the Department of Justice, Montana Highway Patrol (MHP), the Department of Transportation (MDT), and the Department of Natural Resources and Conservation (DNRC). Additionally, there are six members who provide assistance to the IMPD, but do not have voting privileges. These nonvoting members represent: the DOA Public Safety Services Bureau (PSSB) which provides administrative support to the IMPD per executive order; Disaster Emergency Services (DES) housed within the Department of Military Affairs which provides grant management support for federal Department of Homeland Security (DHS) funds; the Montana National Guard (MTNG); the United States Air Force (USAF); and two additional local representatives. The current governance structure provides a mechanism for making decisions guided by the SIEC interoperability definition and technical standards. Duties and responsibilities of the IMPD are defined in the group's bylaws, including membership representing local consortia. However, since nonconsortia membership is not formalized, it is unclear how membership (voting or nonvoting) is extended to nonconsortia organizations, such as state or federal agencies. It is also unclear how membership might be extended to private partners in the future.

# IMPD NonConsortia Membership Appears Inconsistent

The nonconsortia membership of the IMPD currently appears to participate in the governance of the IM project on an inconsistent basis. The current voting membership includes three individual state agencies with communication infrastructure. While both MHP and MDT are actively involved in the IM project, DNRC does not work at the same level as other agencies; interviews with project participants and agency staff indicate that although DNRC occupies a voting seat on the IMPD they do not attend or participate. In addition, the current nonvoting membership includes DES, MTNG, and USAF, all agencies with a significant interest and mission directed toward public safety. However, these three agencies have only been extended nonvoting membership. Presently, it appears that there is no formal criteria currently utilized by the IMPD to extend nonconsortia membership to participate in the governance of the IM project. As a result, there are participatory inequities among members and an inconsistent treatment of project stakeholders. Outside of consortia membership, the IMPD does not have a defined process whereby the group extends participatory membership (voting or nonvoting) to nonconsortia members. Current IMPD bylaws do not define how nonconsortia members are extended participatory membership.

# Federal Guidelines for Governance and Participation

A communications program of the Department of Homeland Security (DHS), SAFECOM provides research, development, testing and evaluation, guidance, tools, and templates on interoperable communications-related issues to local, tribal, state, and federal emergency response agencies.

The program provides members of the emergency response community and other constituents with information and resources to help them meet their communications and interoperability needs. It offers information on topics relevant to emergency response communications and features best practices. The program has developed an "Interoperability Continuum" which outlines five elements to be considered to gain a perspective of a region's interoperability efforts.

One of the five elements considered by the continuum is governance. The SAFECOM program emphasizes a common governance structure for interoperability which will improve policies, processes, and procedures by:

- Enhancing communication, coordination, and cooperation
- Establishing guidelines and principles
- Reducing any internal jurisdictional conflicts

The program developed guidance and recommendations for interoperability related governance. The guidance presents general information about the role, structure, and operations of governing bodies charged with improving communications interoperability at the local, regional, tribal, or state level.

The IM project appears to have generally embraced the SAFECOM governance guidance and recommendations. For example, the SAFECOM approach emphasizes a practitioner-driven approach. From that perspective, the IMPD is clearly well-invested with localities around the state. However, other elements of the SAFECOM approach are still under-developed within IM governance, i.e., the SAFECOM approach calls for an identification of key constituencies that have a stake in coordinated communications. The guidance cites as a common governance challenge a membership not representative of all partners involved in a public safety response. Currently, there are stakeholders with public safety communication infrastructures not active or equally represented in the IM project.

# **IM Project Local Involvement Important**

In contrast to the IM project, the majority of other states reviewed have placed the development of a statewide radio communications system within the authority of a state agency. While the development of the Montana IM project has taken a different path, audit work did not indicate concerns with this local development and control. There is no evidence that the IM project governance should be transferred to a state agency. The extent of local involvement in the development of a statewide radio communication system in Montana has been an important factor in the success of the IM project to date.

#### **RECOMMENDATION #1**

We recommend the Governor's Office work with related state agencies and local governments to seek revisions to statutes governing radio communications to:

- A. Establish a statewide interoperable radio communication system.
- B. Define governance principles, including membership and voting rights.
- Identify system participants and address the inclusion of existing radio systems.

# **Chapter IV – State Agency Participation**

#### Introduction

This chapter discusses issues related to the participation of state agencies in the build out of the Interoperability Montana (IM) project. Since there is no formal requirement for state agencies to participate in the project or actively plan to migrate their existing communication infrastructures to the IM system, state agencies involvement is varied, with some agencies embracing the project and others less involved. As a result of the project being voluntary for state agencies, there is no standard of involvement, no statewide plans to migrate existing communication functions, and no coordinated effort on the part of state agencies to request resources from the legislature to take part in the IM project. This chapter presents our findings and conclusions relative to state agency involvement in the IM project. The end of this chapter presents our recommendation regarding state agencies participation in the IM project and migrating existing state radio communications functions into the future system.

# State Agency Communication Systems Represent Significant Assets and Resources

As part of development of the IM project, a needs assessment of state agency communication resources was performed by a contractor for the IM project. The goal of this assessment was to determine the gap between where the state agencies are and where they need to be concerning interoperable communications in the future. Radio communications assessments were conducted for eight state agencies. The departments involved in the assessment were:

- Department of Administration (DOA)
- Department of Corrections (DOC)
- Department of Fish, Wildlife and Parks (FWP)
- Department of Justice (DOJ)
- Department of Livestock (DOL)
- Department of Military Affairs (DMA)
- Department of Natural Resources and Conservation (DNRC)
- Department of Public Health and Human Services (DPHHS)
- Department of Transportation (MDT)

The goals of the assessment included an inventory of the existing radio infrastructure and systems currently utilized by State of Montana. The following table represents the combined mobile and portable radio inventory of the above state agencies compiled from the contractor assessment and additional information obtained from agency records.

The information includes only assets owned by each individual agency.

From a financial and staffing perspective, the resources currently expended to support state agency communication existing systems are difficult to capture. The level of detail available from state agencies varies, with some agencies providing a greater level detail of the resources they currently expend to support their existing agency radio system than others. Resources agencies expend to support radio communication existing structure generally represent: equipment purchases such as handhelds, mobiles, and fixed towers, equipment upgrades, radio refurbishing, software costs, installation costs, accessories, miscellaneous supplies and material, and personnel costs.

Table 3
State Agency Mobile and Portable Radio Inventory
as of November 2008

Agency	Mobile	Portables
DOA	0	26
FWP	93	52
DOJ	452	367
DOL	28	6
DMA	0	103
DNRC	352	456
DPHHS	17	12
MDT	1992	619
DOC	232	429
Agency Totals	3166	2070

Source: Compiled by the Legislative Audit Division from department records and contractor assessment of state agency communication resources.

The information in the following table represents an estimate of the average annual

Table 4

<u>Estimated Average Annual State Agency Radio Costs</u>
and FTE as of November 2008

Agency	Annual Costs*	FTE
Transportation	\$252,790	12
Fish, Wildlife and Parks	145,760	0
Corrections	23,302	0
Justice	261,680	3
Natural Resources	66,460	3
Military Affairs	95,570	10
Total	\$845,562	27

<sup>\*</sup>Does not include personnel costs.

Source: Compiled by the Legislative Audit Division from department records.

costs currently expended collectively by select state agencies with communication systems and operations. The table also includes the number of FTE utilized by state agencies to support radio state agency communication systems. Annual costs represent equipment maintenance, upgrade and related equipment costs. Annual costs do not include personnel costs.

In addition to the costs expended on maintenance, upgrade and related equipment costs, state agencies report that they collectively have 27 FTE which support state agency radio

communication system. If estimated at an average salary of \$50,000 per year, the collective personnel resources expended by the state to manage state radio communications totals \$1,350,000 annually. With the additional personnel costs, the state expends nearly \$2.2 million annually on radio communication systems.

#### CONCLUSION

The State of Montana currently expends significant resources to support existing state agency radio communication systems.

# No Formal Plan to Migrate State Agencies to the IM System

Participation in the IM project by state agencies is voluntary. There is no formal directive which requires agencies to participate in the current build out of the system or actively plan to ultimately transition existing agency communication functions and staffing to the IM system. State agencies generally regard their communication networks as stand-alone systems, with little regard for interconnectivity between other state agencies, let alone the transition to a statewide public safety communication system. As such, the concept of a statewide shared radio communication system generally is not a large priority for all state agencies. If involved in the effort, agencies have voluntarily taken part in the IM project from the perspective of improving communications for their own individual needs and constituency. If agencies have chosen not to be involved, they cite issues of resources, or indicate the IM project is not applicable to their agency mission, or provides a level of functionality not required by their agency. The following represents examples of the varied levels of participation on the part of state agencies.

- The Montana Highway Patrol (MHP), which supports DOJ's entire radio infrastructure, staff indicated that they intend to follow the current build out and fully transition to the IM voice network. As IM sites become operational, MHP will move its functionality to those sites. From an equipment perspective, MHP plans to ultimately dismantle their equipment sites. The migration to the IM system is the plan for MHP. Currently, MHP is working on an agreement to maintain the IM microwave backbone. Consequently, they do not see any staffing functions transitioning to the IM system.
- MDT appears to have embraced the IM project. Program staff report that they do not have a specific plan or timetable to transition to the IM system, rather they plan to follow their existing equipment replacement cycle. As equipment is replaced through the agency's established replacement cycle process, they plan to purchase compatible or upgradable equipment which will function with the IM system. Staff indicate they will consider IM system needs and try to align their equipment upgrades with the overall system build out. As long as the IM system provides the same level of coverage as their current system, they expect to take part in the IM project. Presently, MDT staff do not see agency staffing functions transitioning to the IM system.

- DNRC is not actively involved in the project. Despite the fact that DNRC staff sit on the IMPD board, they are not currently taking part in the project. Agency staff report their lack of participation in the IM project is twofold. First, they do not have the resources to take part; agency staff report the department requested funds in the 2007 General Session, but were unsuccessful. Secondly, they do not believe they have the same needs as agencies like DOJ and MDT which require statewide coverage. DNRC staff believe their needs are much more localized and there is not a significant need for them to communicate with other agencies or organizations. Currently, DNRC does support the effort, but until issues of resources and utility are addressed any plans to take part in the IM project are on hold.
- Disaster and Emergency Service (DES) and the Montana National Guard (MTNG) appear the least engaged in the IM project. From a public safety perspective, these two divisions of DMA would appear to have a significant interest in interoperable radio communications in the state. DES staff report that unlike many other state agencies they do not have significant communication structures of their own, nor do they have any real communication needs of their own. In terms of radio resources, they maintain a small cache of handheld radios which may be loaned out to localities if requested. If faced with a disaster or emergency situation, locals may request DES support with emergency management. According to staff, DES only provides support; they do not manage a disaster situation, rather they coordinate and locate resources. DES staff report that all requests for resources arrive at DES through conventional means, such as telephone, fax, or e-mail. Requests do not arrive via radio communications. Staff report there is no need for DES transition to the system.
- The MTNG are primarily interested in utilizing the future IM microwave backbone to communicate with the MTNG network of armories around the state. There is no transition process. The IM project essentially represents a project of mutual benefit whereby the MTNG will be able to enhance communication with those armories while providing some federal resources for the purchase of microwave radios which will be utilized on the IM system. In addition to utilizing the backbone, the MTNG utilizes the current microwave link between Helena and Great Falls, in the event a disaster would require them to move their base of operations. Aside from the added value the IM project will bring to the MTNG, they do not expect any operation changes as a result of the IM system. At present, if the MTNG were asked to aid with a local or state disaster, they would mostly likely utilize the communication equipment of a local or state agency. If that were not an option, communication would take place via a face-to-face contact. Currently, if a disaster were to occur across a large multijurisdictional area, interoperable communications would be limited to the Montana Mutual Aid and Common Frequency Plan.

The process for migration of agency communication functions and staffing is unique to each agency. Some agencies are involved; others are not. If involved, generally agencies are transitioning communication functions parallel to the IM build out process. Agencies are also replacing older equipment through an established internal replacement cycle; they are purchasing compatible or upgradable equipment which will function with the

IM system. Other agencies are currently not transitioning to the IM project, with no future plans to do so. None of the agencies plan to migrate existing communication staffing functions to the IM project. Rather they envision current communication staff supporting the future IM system.

# State Agency Migration to IM Could Result in Cost Savings

Without a formal plan for state agencies to participate in the IM system and migrate existing communication functions to the system, the State of Montana would operate multiple redundant systems. State agencies will choose their level of involvement and either participate in the IM system or maintain existing systems or both. In this regard, any potential cost savings to the state to operate a single communication platform rather than multiple independent systems would be lost. At present, state agencies also independently pursue resources from the legislature to achieve radio interoperability. There is no coordinated effort on the part of state agencies to request resources from the legislature to take part in the IM system.

# **Public Safety Concerns**

As there is no mandate requiring state agencies to migrate existing communication functions to the IM system, there is a risk that IM will not be a truly statewide interoperable radio communication system. State agencies will continue to embrace the IM project on an individual basis, retaining a fragmented system which will provide no improvement to the existing situation where agencies continue to operate independent systems. This also has the potential to compromise public safety communications and place lives at risk whereby agencies are unable to communicate effectively with other state and local public safety organizations during the time of an emergency or disaster.

#### CONCLUSION

There is no formal plan or requirement for state agencies to participate in the IM project, impacting the state's ability to coordinate resources and effectively respond to a public safety disaster or emergency.

# DOA Responsible for Information Technology for State Government

There are few legal references related to the use or management of state agency radio communication resources. However, within the Montana Information Technology Act, 2-17-504, MCA, DOA is tasked as responsible for the planning and program responsibilities for information technology for state government. While a radio system employs traditional radio equipment at the level of the first responder, due to advances in

technology the development and support of a radio communication system is essentially the support of an information technology system. The Act provides several references regarding the responsibility of the DOA relative to information technology for state government.

According to section 2-17-505(2), MCA, it is the policy of the state that the development of information technology resources in the state must be conducted in an organized, deliberative, and cost-effective manner. Section 2-17-506(7), MCA, defines information technology as hardware, software, and associated services and infrastructure used to store or transmit information in any form, including voice, video, and electronic data. And section 2-17-506(9), MCA, defines statewide telecommunications network as any telecommunications facilities, circuits, equipment, software, and associated contracted services administered by the department for the transmission of voice, video, or electronic data from one device to another. Section 2-17-511(2), MCA, outlines the duties of DOA's Chief Information Officer, including serving as the chief policy advisor to the director of the department on statewide information technology issues. As outlined within the powers and duties of the department, section 2-17-512(1)(b), MCA, states that DOA shall promote, coordinate, and approve the development and sharing of shared information technology application software, management systems, and information that provide similar functions for multiple state agencies. Additionally, section 2-17-512(1)(p), MCA, states DOA shall coordinate public safety communications on behalf of all state agencies as provided for in sections 2-17-541 through 2-17-543, MCA. Those sections of statute speak to the role of DOA in coordinating the use of land mobile radio public safety frequencies in Montana with the Federal Communications Commission.

Within the Administrative Rules of Montana (ARM), the regulation of communication facilities is delegated to DOA, ARM 2.13.101. The rules define the state's communication systems (to include land mobile radio equipment) and indicate that DOA must approve the installation, modification, or removal of all state telecommunication systems. The rules also provide that all state agencies are individually responsible for all costs incurred in the operation of the telecommunications systems utilized by each agency.

## Other States Have Utilized Formal Migrations Plans

Audit work found other states develop a strong commitment for a statewide communication system through either legislative mandates or executive support. The following represents examples of the formal migration of individual state agency communication functions into a single statewide platform in other states. These examples represent statewide communication systems overseen by state government agencies.

• In Colorado, a legislative mandate required state agencies to take part in the Digital Trunked Radio (DTR) Project. There was a consolidation of state

- communication functions. A seven-phase plan was developed to migrate agencies onto the DTR system.
- Indiana also mandated participation by state agencies through legislation. State agencies have maintained limited communication personnel to support their users and interface with Safety Acting for Everyone Together (SAFE-T). The Indiana State Police have retained their communications technicians to maintain their subscriber equipment and the statewide microwave system, as well as data network connections to their statewide dispatch centers.
- Other states which also utilized statutory mandates to migrate state agencies onto single statewide communications networks include Oregon and South Dakota. Statute in Oregon included a specific end date for migration. Oregon also commissioned a study to analyze consolidating existing state agency radio communication systems. The study recommends a consolidated state network. Efforts in South Dakota migrated all communication functionality to one agency.
- Ohio also mandated their system for state agencies, albeit through executive sponsorship rather than legislation. Cabinet-level appointees were required to aid in the transition of their individual agencies. Ultimately, all the functionality and staffing of the various state agencies with communications infrastructure were brought under the umbrella of the Multi-Agency Radio Communication System (MARCS). There was no specific migration plan or timetable and no formal cost savings analysis was completed. However, program staff estimated there was approximately a 75 percent reduction in communication staff across state agencies as a result of the migration. Multiple positions and functions were eliminated.

# State Agency Direction Needed

Audit work of other state radio communication systems indicates that strong commitment for a statewide communication system through executive support can be key to the successful migration of multiple state agencies' communication functions to a single shared platform. Through executive agency leadership, the Governor's Office could take the lead on actively defining the role of state agencies and their subsequent participation. Currently, there is no mandate requiring state agencies to participate in IM, nor does there appear to be significant executive level direction for state agencies to migrate existing radio communications to the IM project. Considering the level of resources involved, it appears to be cost effective for the state collectively to define its participation and commitment to the IM project. If state agencies are allowed to continue to participate in the IM project in a piecemeal fashion, the communication infrastructure of the state will remain fractured with state agencies operating multiple or redundant systems. Without the full participation of state agencies, the IM system will not be a statewide interoperable radio communication system and will provide no improvement to the existing situation where agencies operate independent systems. State agencies will be limited in their ability to communicate with other state and local public safety organizations during the time of an emergency or disaster and place the lives of the public at greater risk.

### RECOMMENDATION #2

We recommend the Governor's Office, in conjunction with the Department of Administration, work with state agencies to develop a formal migration plan and develop methods to coordinate state resources relative to statewide radio communications interoperability.

# **Chapter V – Promoting Operational Success**

### Introduction

This chapter discusses issues related to promoting the development of the Interoperability Montana (IM) project. At present, there are several organizational functions which are developing without consideration of the long-term effects on the project. There are two reasons for this. First, the IM project is still in the early stages of its development; secondly, the IM project does not appear to receive guidance from a statewide policy perspective. The three operational issues this chapter will discuss relative to the IM project are:

- Long-term business planning
- Asset inventory and management
- Project staffing

This chapter presents our findings and conclusions relative to the ongoing operational development of the project. The chapter presents three recommendations to promote the IM project functions efficiently, protects the investment of public funds, and ultimately provides a greater level of public safety.

# **IM Project Lacks Operational Guidance**

In the past, the Interoperability Montana Project Directors (IMPD) has been primarily focused on the construction phase of the project, with little attention given to long-term project considerations. Recently, the IMPD has begun to work on these issues. From a statewide policy perspective, the IM project is guided by the Statewide Interoperability Executive Advisory Council (SIEC), a governor-appointed body. The purpose of the SIEC is to assist the IMPD with Montana's interoperable communications. The SIEC established a technical standard and definition for interoperability which the IMPD has adopted. The Executive Order which established the SIEC indicates that the SIEC and IMPD work in cooperation towards the development of a statewide interoperable radio communication system. However, the SIEC is not actively involved in the project, with the IMPD solely responsible for the operational development of the IM project. As such, beyond the technical standards and definition, the IMPD does not appear to receive any substantive guidance for the IM project from the SIEC, relative to issues such as asset management, organizational staffing, and long-term business planning.

## Business Planning Needed For Long-Term Project Success

While the IMPD has successfully leveraged resources for the construction phase of the IM project, the group has not planned for the long-term operational and maintenance

costs for the project through a business planning process. Generally, a business plan is a formal statement of a set of business goals and the plan for reaching these goals. Although business plans have no fixed format, they typically cover background information, a marketing plan, an operation plan, and most importantly a financial plan to sustain its goals. While the IM project has a strategic plan which guides the technological build out of the system, there is no formal business planning process in place to guide the long-term financial sustainability of the project. The group recently created a draft sustainability plan which proposes a funding mechanism for IM project, but the plan does not take into account several key issues such as the number of users (or customers) statewide, the annual operational costs, or the pricing structure needed to support the system; i.e., how much and from where. The draft plan also does not present any rationale for its proposed funding structure.

# **IM Project Success Uncertain**

The current and future investments in the IM project most likely represent the largest statewide technology project in recent memory. Considering only the investment of public funds for the build out phase of the project without consideration of ongoing operational costs, expenditures are estimated at approximately \$150 million within the next decade. Without an identified business planning process, the IMPD runs the risk of either an unsuccessful build out, or of ultimately building a system which is not sustainable. An unsuccessful build out represents unrealized cost savings for the public whereby state and local partners would continue to run multiple systems rather than collectively support a single, shared statewide communications platform. An unsuccessful build out also represents a statewide system which maintains the status quo (does not achieve interoperability) and provides a limited ability for state and local agencies to respond effectively to a public safety emergency.

# **Current IM Business Planning Process Limited**

The IMPD's current business planning process is limited. In the early stages of the IM project, needs assessments were performed for consortia and state agencies to examine radio communication capabilities. Those assessments generally identified and discussed concerns and risks for the development of the system, including funding sources. Due to the fact project participants (state and local) contracted independently for the work, the assessments were performed by three different consultants. Some assessments included cost estimates for equipment purchases and installation; only one assessment included any kind of estimate for ongoing operation and maintenance. The value of the needs assessments to take a comprehensive look at the early stages of the IM business planning process is limited. Due to the fact that there does not appear to have been a consistent or coordinated approach between consortia or state agencies on the type of analyses to be performed, a global picture of the business planning process is not possible. In fact, it appears that the concept of a formal business plan as part of the assessment work was generally not considered. The assessments also do not consistently gauge the potential user community.

### CONCLUSION

The current business planning process utilized by the Interoperability Montana Project Directors is limited.

## **Business Planning Would Strengthen IM Project**

While there are no formal standards for utilizing a business planning process for the development of a statewide communication system, those states which have utilized a formal business planning process as part of their interoperable radio communication build out efforts generally have a much better idea of the ongoing costs and subsequent commitment that those states will need to make to the long-term care of a statewide communication system. In contrast, the SIEC in conjunction with the IMPD have not planned for the long-term operational and maintenance costs for the system. They have not adequately prepared the legislature for the long-term costs and subsequent commitment the public will need to make to ensure the success of a statewide radio communication system. Adopting a formal business planning process for the IM project would provide the legislature with a clear idea of the project's potential users and annual costs, present a due consideration of all funding sources, and provide a rationale for the project's funding structure.

## How Other States Fund Statewide Communication Systems

The funding support of radio communication systems in other states varies. Some states have established dedicated legislative appropriations while others rely on user fees to support their systems. There is no pattern relative to the support of these systems. For example, state operated systems are supported by both user fees and legislative appropriations. The following represents examples of how other states fund their statewide radio communication systems.

- The Indiana Project Hoosier Safety Acting for Everyone Together (SAFE-T) is a statewide, interoperable, wireless public safety communications system for local, state, and federal first responders and public safety officials. The system is currently funded by a dedicated legislative appropriation until 2019. The source of that appropriation is motor vehicle fees.
- The Minnesota Allied Radio Matrix for Emergency Response (ARMER) is a digital radio network comprised of a digital microwave system and a statewide digital trunked voice radio system. Currently, the system is only operational in the Minneapolis/Saint Paul metropolitan area. The system is supported by 911 fees.
- The Ohio Multi-Agency Radio Communication System (MARCS) is a radio and data network that utilizes trunked technology to provide statewide interoperability to its subscribers throughout Ohio and a ten-mile radius outside of the state. The system is supported exclusively by user fees.

- The South Dakota State Radio System is a statewide radio communication trunked system. The system is supported entirely through state general fund appropriations.
- The Utah Communications Agency Network (UCAN) is a trunked radio network. The system currently operates in approximately nine of twenty-six counties along the Wasatch Front, a metropolitan urban area in the northcentral part of the state. The system is funded solely by user fees.
- The Colorado Statewide Digital Trunked Radio (DTR) system is an integrated trunked digital radio system. The system currently provides coverage to approximately 87 percent of the state. In 1998, the Colorado legislature created the Public Safety Communications Trust Fund to be used for the acquisition and maintenance of public safety communication systems for use by departments of state government.

# Other States Able To Articulate Long-Term Costs

Audit work indicates those states which have utilized a formal business planning process are better able to articulate the future costs of their systems. For example, in Minnesota, the state contracted with a consultant to examine the issues related to the development of a business plan for the ARMER radio communication system. This report examines numerous potential sources of long-term funding for the project, including taxes, special assessments, and user fees. The report provides an estimate of long-term costs and concludes the scope of a project determines the nature of an operation and funding alternatives. The state of Oregon also developed a business case study for the Oregon Wireless Interoperability Network (OWIN). The study provides information on the need and benefits of the system, a review of system requirements, estimated costs for constructing and operating the OWIN system, and risks associated with the project.

#### CONCLUSION

Other states have established funding sources to support statewide radio communication systems.

# How Do We Project Montana's Funding Needs?

The long-term costs to support the ongoing maintenance and operation of radio communication systems vary from state to state. It is difficult to compare individual states and costs per users, as some states systems are operating statewide and others are operating regionally. Relative to the states reviewed, the average cost per user is about \$242 annually or about \$20 a month. The following table provides an estimate of the cost per user for the ongoing maintenance and operation of statewide radio communication systems in other states reviewed.

Table 5
Other State's Estimated Cost Per User

State	Statewide or Regional System	# of Users	Annual Maintenance/Operational Costs	Annual Cost Per User
Indiana	Statewide	40,000	\$5,000,000	\$125
Minnesota	Regional	20,000	\$5,000,000	\$250
Ohio	Statewide	23,000	\$11,000,000	\$478
South Dakota	Statewide	14,000	\$1,600,000	\$114
Utah	Regional	17,000	\$4,200,000	\$247

Source: Compiled by Legislative Audit Division from information gathered from other states.

# Potential System Users for the Montana IM System

In terms of a user community, the types of users who generally utilize statewide public safety radio communication systems across other states are similar. Users are generally comprised of state agencies and numerous local users comprised primarily of public safety responders. Users also include Tribal Nations. Some states are attempting to attract other potential users also, such as private users like utility companies.

According to data obtained from the Federal Communication Commission (FCC), there are a total of 451 municipal, county and tribal governments and other related governmental entities in Montana, with 24,849 likely radio users. The number of mobile and portable radios assets owned by state agencies totals about 5,000 pieces of equipment. Combining the FCC data and state mobile and portable equipment indicates that the potential radio users total about 30,000 across the state of Montana.

# Lewis and Clark County Success Provides Glimpse of Statewide System

The Southwest Interoperability Project (SWIP) was an early component of the IM project and focused on the area of Lewis and Clark County. It formed the basis of the first concept demonstration project for the IM system build out. When SWIP became operational, there were about 400 system users. Currently there are over 2000 users. Initially the SWIP system included only public safety agencies, but in order to obtain more frequencies additional users were added to the system. Public nonsafety agencies were able to join the system if they provided access to their frequencies.

# **Funding Options for IM Project**

There are several funding options to consider for the long-term operational and maintenance costs of the IM system. Other states have utilized funding options including dedicated legislative appropriations such as motor vehicle fees, general fund appropriations, and user fees. Funding sources currently under consideration by the IMPD in their draft sustainability plan include:

- Bed and Hotel Tax
- Fuel taxes
- One-time funding sources on a biennial basis
- Unexpended Funds from state special revenue sources

As evidenced by other states, the IMPD could also consider user fees. Our analysis of the potential user community and participation in Lewis and Clark County suggests the IM project could ultimately serve up to 30,000 individual users (25,000 local users and 5,000 state). This total does not include potential users in the federal government or in the private sectors. Another funding option utilized by other states includes the establishment of a public safety trust fund for public safety communication systems. The IMPD could also explore this option as a potential funding source for a statewide interoperable radio communication system.

#### RECOMMENDATION #3

We recommend the Statewide Interoperability Executive Advisory Council, in conjunction with the Interoperability Montana Project Directors, adopt a formal business planning process, including due consideration of:

- A. Potential system users
- B. Annual operation costs
- C. Potential funding sources

# IM Project Lacks Inventory and Long-Term Maintenance Plans for System

Information on the status of IM assets acquired with IM project funds is limited. As most of the assets purchased with IM project funds are directed to local project build out activities, assets are generally located at the county level. As part of the grant award process between Disaster Emergency Service (DES) in its role as the Department of Homeland Security (DHS) grants administrator and a local jurisdiction

receiving equipment, DES issues an award letter which outlines the responsibilities and expectations of the local jurisdiction. DES award letters also outline the specific equipment to be purchased with DHS funding. When a local jurisdiction accepts any equipment, they accept all ownership of that equipment, including the responsibility to inventory and maintain those resources. Other expectations include providing for insurance, site lease expenses, and utilities. As for funds for an IM project activity which are state appropriated resources and handled by the Department of Administration's (DOA) Public Safety Services Bureau (PSSB) there is no formal award process outlining expectations of locals. PSSB staff indicate that for state appropriations which have been used as a local match for federal grants, the state relies on the terms of those federal grants regarding ownership and maintenance.

As such, there is no global equipment inventory of assets purchased with IM project funding. Rather, each jurisdiction is responsible for developing an inventory of equipment located at the local level. Likewise, while each locality generally is responsible for the maintenance of the equipment it receives, there is no global equipment maintenance schedule which regards the IM project as a statewide communications platform and plans for equipment replacement, repair, or obsolescence. Similarly, state agencies generally appear to inventory and maintain their communication infrastructure according to internal schedules and have yet to consider their involvement in the IM project from the perspective of a statewide communication system.

# **IMPD Should Monitor Collective Assets of IM Project**

To date, the IM project has allocated approximately \$60 million on build project activities, with an expected project total of about \$150 million within the next decade. The resources expended represent a significant investment of public funds from both state and federal sources. As a result of the lack of a global inventory, maintenance or replacement cycle, the IMPD has limited knowledge of the project's collective assets. While project participants such as state agencies or localities inventory and maintain radio communication resources on an individual basis, the IMPD is unable to exercise any significant level of oversight over project assets from the global perspective of a statewide communication system.

# **Operational Best Practices**

While modern radio communication systems have provided increased technology benefits over radio systems of the past, they require a more concerted effort on the part of communications officials to coordinate, manage, as well as monitor the system to plan for future improvements. Modern radio system oversight requires a multifaceted management approach. Communications officials routinely must assess various technical and operational factors that impact their systems, and ultimately their customers, the

radio users. A review of operational radio best practices compiled by the Public Safety Wireless Network Program, an initiative of the federal Departments of Justice and Treasury to address public safety interoperability, offers several options which could be adopted to improve system efficiencies, overall management functions, and ultimately enhance interoperability.

- Track the Distribution and Maintenance of Subscriber Units (handheld radios). By tracking the distribution and maintenance of subscriber units, public safety agencies can gain a historical perspective on past efforts and current work related to those units. A historical perspective allows system maintenance personnel to troubleshoot problems with subscriber units by analyzing the service record of a particular unit. To that end, a comprehensive database should be developed to track subscriber units throughout their life cycle.
- Develop and Implement a Formal Maintenance Plan. A formal maintenance plan should be implemented to facilitate the inspection and maintenance of software, equipment, and system infrastructure. For example, common system failures, such as alarm and backup battery failures, can be mitigated through periodic tests and replacements. To facilitate this effort, an established maintenance plan that provides a schedule for conducting routine and preventative maintenance would prove valuable for public safety agencies. Maintenance plans should include a detailed description of the tasks to be performed and the resources required to complete them. Guidance should be provided detailing these tasks to ensure maintenance is performed appropriately. Moreover, modern systems are more technically complex than legacy systems, highlighting the need for an established approach to system maintenance. Appropriate maintenance provision tracking can help to identify problem areas and needs for specific attention to components that fail repetitively. The collection of such information assists with the justification for continuing maintenance funding and future component or infrastructure replacements.

# **Operational Best Practices Will Improve IM System**

Adopting these operational best practices will improve the ability of the IMPD to manage IM radio communication assets from a global perspective rather than on an individual participant basis. While the effort on the part of the IMPD to emphasize local control is important from the perspective of local commitment to the IM project, it is important to consider that each local component is part of a larger statewide communication infrastructure. Consequently, the system should be managed from perspective of a shared statewide communications platform. Implementing these operational best practices should improve the ability of the IMPD to more efficiently manage the collective IM assets and further enhance statewide interoperable radio communications. Notably, the IMPD recently tasked a financial management contractor to complete a physical inventory of IM project equipment. While a positive step, this effort will need to be linked to a formal maintenance plan for the project.

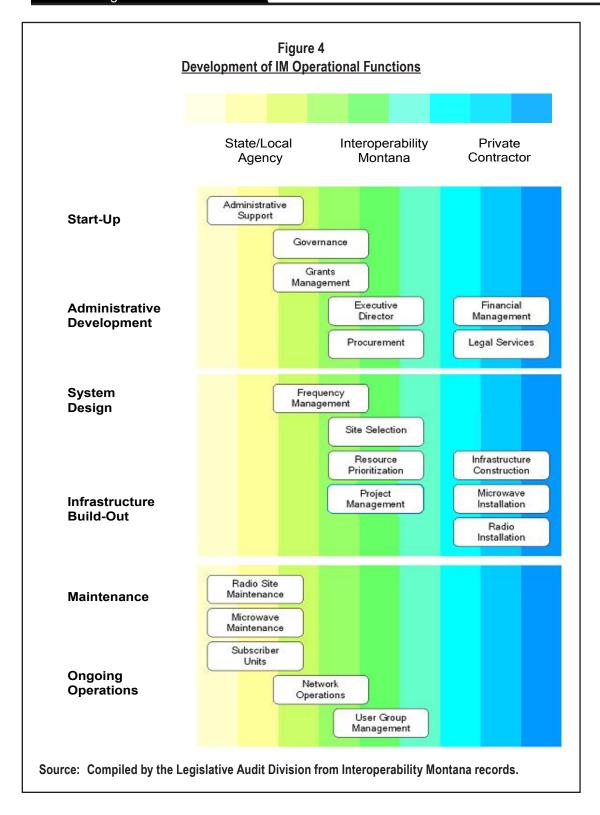
### RECOMMENDATION #4

We recommend the Statewide Interoperability Executive Advisory Council, in conjunction with the Interoperability Montana Project Directors, adopt industry operational best practices for asset management of a statewide interoperable radio communication system.

# IM Project Staffing Lacks Organizational Plan

Since the beginning of the IM project, the IMPD has managed the project by leveraging the expertise and resources of the multiple local, state, and federal agencies involved in the project. Essentially, agencies have donated staff time in an ad hoc fashion and provided the administrative and technical personnel needed for the project on an ongoing basis. In addition, the IMPD formally contracted for legal, financial, and project management services. However, due to the growth of the project, the IMPD recently hired an executive director (ED) to manage the day-to-day operations of the project. According to the IMPD, the primary rationale for this development was that there needs to be a single point of contact for the project which can relieve the current IMPD of the daily duties associated with the IM project. All IMPD members have full-time commitments elsewhere, such as law enforcement officials or state agency employees. The IMPD is also currently advertising for additional project staff, including project managers and a radio systems administrator to staff the project.

From an outside perspective, it does not appear hiring of staff is guided by an organizational plan for the IM project. As noted, the IMPD has appropriately leveraged personnel expertise from a variety of sources as needed by the development of the project. But now as the IM project is growing beyond an ad hoc organization, the IMPD has not fully considered how IM project staff will interact with the various project partners, i.e., is the organization under development the right one for the IM project. The following figure illustrates the various organizational forms the IM project has utilized over the course of its organizational development.



# Role of IM Project Staff Unclear

Presently, it is unclear for whom an ED or future additional staff for the IM project will work. There appears to be a lack of consensus, planning, or understanding of the issue on

the part of the IMPD. Interviewees offer a variety of possibilities. One possibility being explored by the IMPD is to develop a relationship with the Montana Association of Counties (MACO) and house any IM staff there. Some interviewees think IM staff will be county employees, while others think they will be employees of MACO. Some think staff will be answerable only to the IMPD, while others think staff would report within the MACO hierarchy. Regardless of the ultimate status of any IM staff, IMPD members are uncertain about what role the IMPD will play in the oversight of staff. This level of confusion regarding the roles of IM project staff highlights potential risk to the IM organization, including a basic understanding about what the IM organization is, where it is going, and the long-term plan for the organization.

In addition, as the IM project expands to include multiple local and state communication functions, the IMPD has not planned to coordinate existing administrative and technical personnel. It is unclear whether or not future oversight and maintenance of the entire IM system will be the responsibility of IM staff, or if the multiple communication systems currently operating at the local and state level will retain existing personnel.

# IM Project Could Benefit From Organizational Guidance

In many ways, the development of the IM organization is similar to a startup company. And much like the development of a startup company characterized by high growth, a limited operating history, and substantial risk for stakeholders, the IM project has rapidly evolved it the early stages of its development. However, given the importance a statewide public safety system, this is not an endeavor which should be left to chance; the failure rate of startup companies is very high. It appears the basis for the decisions made by the IMPD relative to project staffing are not guided by type of organizational plan. There is no evidence the SIEC has aided the IMPD with the organizational development of the IM project to determine if the developing IM staffing is in the long-term interests of a statewide interoperable radio communication system.

# Other State's Radio Communication Systems Organizational Criteria

Whether managed by an agency of state government or some other type of administrative entity, the administrative structure of radio communication systems in other states appears to be based on established organizational criteria. The following are examples of the organizational basis for radio communication systems in other states reviewed.

• The Oregon Wireless Interoperability Network (OWIN) is an agency of state government which was created through legislation and charged with building a statewide public safety wireless network to be used by state agencies and available to local, tribal and federal agencies for emergency response and daily operations. Legislation outlines the roles and responsibilities of an executive

- director. The director's responsibilities include appointing a deputy director and organizing the department as necessary for the oversight of the system.
- Established through legislation, the Utah Communications Agency Network (UCAN) is described as a quasi-governmental public agency. UCAN was created to provide public safety communications services and facilities on a regional or statewide basis for the benefit and use of public agencies and state and federal agencies in Utah. The legislation establishes an executive director who administers the various acts, systems, plans, programs, and functions assigned to UCAN, including the ability to employ staff, consultants, and other services regarding the administration of the system.

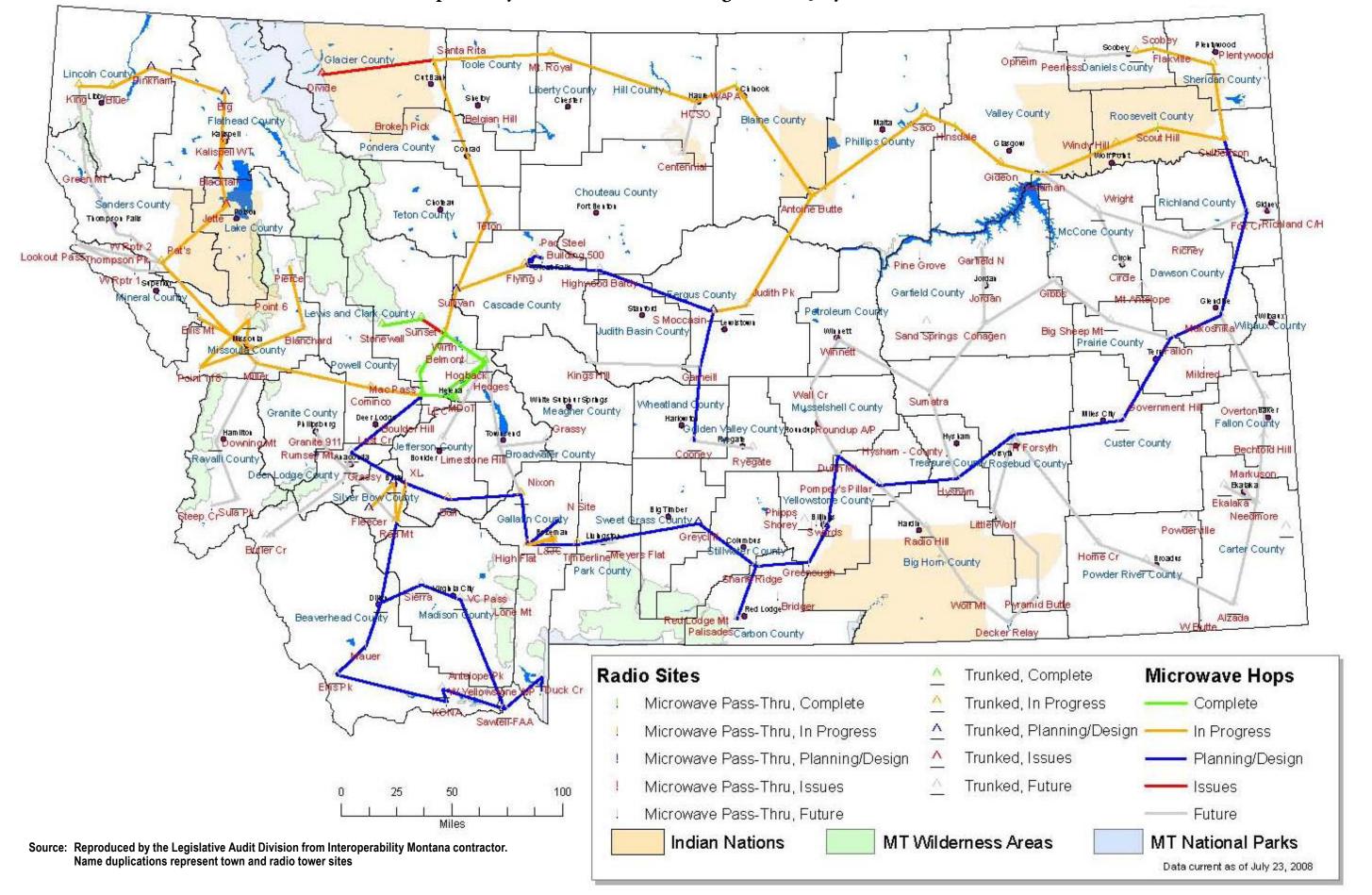
# IMPD Should Consider Role of Staff Relative to IM Organizational Development

To date, the IMPD has leveraged personnel from partnering agencies as needed by the project. Recently, the IM project has grown to the point of hiring staff dedicated to the project. However, the IMPD has not considered the role of these staff relative to the long-term organizational development of the project. The SIEC in conjunction with the IMPD should take a step back and review their staffing decisions to determine if they are the right ones for a statewide interoperable radio communication system.

### RECOMMENDATION #5

We recommend the Statewide Interoperability Executive Advisory Council, in conjunction with the Interoperability Montana Project Directors, develop a long-term staffing plan for a statewide interoperable radio communication system.





# Office and Department Responses

Office of the Governor

DEPARTMENT OF ADMINISTRATION

The Statewide
Interoperability
Executive Advisory
Council

Interoperability
Montana Project
Directors

# OFFICE OF THE GOVERNOR STATE OF MONTANA

BRIAN SCHWEITZER GOVERNOR



JOHN BOHLINGER
LT. GOVERNOR

RECEIVED

DEC 3 1 2008

LEGISLATIVE AUDIT DIV.

December 23, 2008

Tori Hunthausen, Legislative Auditor Legislative Audit Division P. O. Box 201705 Helena, MT 59620

Dear Ms. Hunthausen:

I thank the Legislative Audit Division for its interest in Interoperability Montana (IM). Your performance audit will be helpful to both state officials and the hardworking folks within local jurisdictions involved in the project who are determined to make it succeed.

I appreciate your concern about governance, accountability and statutory authority. Your recommendation that I, as Governor, or an advisory council (SIEC) appointed by me take a lead role in resolving those issues is one in which I cannot concur. It is vital that the solutions to the issues you raise be ones generated by the consortia and the Interoperability Montana Project Directors. I believe any effort to drive this process from the top down threatens the emerging bond holding IM together.

The IM project represents a sea change in intergovernmental relations. This bottom up, grassroots effort to cooperate in creating a statewide interoperable network is not easy. Jurisdictional turf issues have been set aside in the interest of the common good. A lot of good folks are doing a lot of hard work with the help and support of many dedicated state employees. I believe IM is well on its way to finding the solutions you seek, but from within, not from me.

Again, my thanks for your thorough review of IM and for the opportunity to respond to your recommendations.

Sincerely,

BRIAN SCHWEITZER

Governor

# DEPARTMENT OF ADMINISTRATION DIRECTOR'S OFFICE



BRIAN SCHWEITZER, GOVERNOR

JANET R. KELLY, DIRECTOR

# STATE OF MONTANA

(406) 444-2032 FAX (406) 444-6194

MITCHELL BUILDING 125 N. ROBERTS, RM 155 PO BOX 200101 HELENA, MONTANA 59620-0101

December 26, 2008

Ms. Tori Hunthausen Legislative Auditor Legislative Audit Division PO Box 201705 Helena, MT 59620-1705 **RECEIVED** 

DEC 2 6 2008

LEGISLATIVE AUDIT DIV.

Re: Statewide Radio Communications Interoperability Performance Audit

08P-03

Dear. Ms. Hunthausen:

The Department of Administration has reviewed the January 2009 Performance Audit of the Statewide Radio Communications Interoperability. Our responses to your recommendations appear below. I have enclosed a letter from the Governor that addresses recommendations #1, #3, #4 and #5.

### **RECOMMENDATION #1**

We recommend the Governor's Office work with related state agencies and local governments to seek revisions to statutes governing radio communications to:

- A. Establish a statewide interoperable radio communications system.
- B. Define governance principles, including membership and voting rights.
- C. Identify system participants and address the inclusion of existing radio systems.

### Response:

Do not concur. Please see the Governor's Office response. The Department of Administration is committed to the success of the Interoperability Montana project and will assist as requested by Interoperability Montana and the Governor's Office.

### **RECOMMENDATION #2**

We recommend the Governor's Office, in conjunction with the Department of Administration, work with state agencies to develop a formal migration plan and develop methods to coordinate state resources relative to statewide radio communications interoperability.

### Response:

Concur. The Governor, with the advice of the SIEC and the IMPD will direct the CIO to formalize the planning process for state agency migration to IM. State agency interoperable communications needs will be highlighted by the CIO in the next information technology planning cycle.

### **RECOMMENDATION #3**

We recommend the Statewide Interoperability Executive Council, in conjunction with the Interoperability Montana Project Directors, adopt a formal business planning process, including due consideration of:

- A. Potential system users
- B. Annual operating costs
- C. Potential funding sources

### Response:

Do not concur. Please see Governor's letter. The State of Montana and the Interoperable Montana Project prepared and submitted the Montana Statewide Communication Interoperability Plan (SCIP) in 2007, which lays the foundation for business planning. The Interoperable Montana Project Directors (IMPD) continue to enhance and expand the SCIP with long-range sustainability planning that addresses the details you describe: identifying users, operating costs and funding. The Department will continue to assist and support this process already in progress.

### **RECOMMENDATION #4**

We recommend the Statewide Interoperability Executive Council in conjunction with the Interoperability Montana Project Directors adopt industry best practices for asset management of a statewide interoperable radio communication system.

### Response:

Do not concur. Please see Governor's letter. The Interoperable Montana Project Directors are currently implementing professional accounting practices and the completion of an asset inventory, with the assistance of the Department and as required by the Statewide Communications Interoperability Plan. The Public Safety Services Bureau will continue to support the Interoperability Montana Project Directors through the maintenance of best practices documentation. The Statewide Interoperability Executive Council will be asked to review these best practice documents.

### **RECOMMENDATION #5**

We recommend the Statewide Interoperability Executive Council, in conjunction with the Interoperability Montana Project Directors, develop a long-term staffing plan for a statewide interoperable radio communications system.

### Response:

Do not concur. Please see Governor's letter. The Interoperability Montana Project Directors are working hard to finalize the plan you describe. The Statewide Interoperability Executive Council will be asked to review that plan and make recommendations to the Department and the Governor's Office.

I want to thank you and your staff for their hard work, and drawing these important matters to the attention of the Legislature. The Department always views the audit process as an opportunity for improvement and welcomes your input.

The Department's Corrective Action Plan (CAP) is enclosed.

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# Preliminary Response Corrective Action Plan (CAP): Performance Audit Report # 08P-03 Statewide Radio Communications Interoperability Department of Administration December 26, 2008

Agency	Recommendation #	Does this	CFDA#	Management	CAP - Corrective Action Plan	Person	Target Date
		affect a	(if	View		responsible for	
		federal	previous			CAP	
		program?	YES)				
61010	Recommendation #1	NO		Do not	1. Please see the Governor's	Scott Bradford	Ongoing
				Concur, but	Office response.		
	We recommend the Governor's Office			DoA will	2. Through our technical		
	work with related state agencies and			assist as	and administrative support to		
	local governments to seek revisions to			appropriate.	the Interoperability Montana		
	statutes governing radio				Project, the Department will		
	communications.				move forward in establishing a		
					single, statewide radio		
	A. Establish a statewide				communication system.		
	interoperable radio				3. The Department will take		
	communication system.				an active role in the IM		
	B. Define governance principles,				Governance Committee to		
	including membership and				define voting rights for State of		
	voting rights.				Montana and partner agencies.		
	C. Identify system participants				A review of potential		
	and addresses the including of				legislative options will be		
	existing radio systems.				made.		
	omorning radio by sternio.				4. The Department, as part		
					of our ongoing support, will		
					assist the IM Project with		
					identifying future participants		
					and incorporate interfaces with		
					· -		
(1010	D 14: 110	NO		C	existing users.	Diala Claula	I 2010
61010	Recommendation #2	NO		Concur	1. The Department proposes	Dick Clark	January 2010
					a joint, cooperative study with	Steve Bender	

Agency	Recommendation #	Does this affect a federal program?	CFDA # (if previous YES)	Management View	CAP – Corrective Action Plan	Person responsible for CAP	Target Date
	Recommendation #2 continued  We recommend the Governor's Office, in conjunction with the Department of Administration, work with state agencies to develop a formal migration plan and develop methods to coordinate state resources relative to statewide radio communications interoperability.				the IMPD, Department of Transportation, Department of Natural Resources and Conservation, and Montana Highway Patrol, to develop planning for migration to a joint radio system, and optimizing critical resources such as frequencies, infrastructure and sustainability resources.		
61010	Recommendation #3  We recommend the Statewide Interoperability Executive Council, in conjunction with the Interoperability Montana Project Directors (IMPD), adopt a formal business planning process, including due consideration of:  A. Potential system users B. Annual operation costs C. Potential funding sources	NO		Do not Concur, but DoA will assist as appropriate.	1. Please see the Governor's Office response. 2. The Statewide Interoperable Executive Council is an advisory group, and the Department recommends that it remain so. The Department will continue to increase the SIEC awareness of IMPD developed planning. 3. The State of Montana and Interoperability Montana Project prepared and submitted the Montana Statewide Communication Interoperability Plan in 2007, which lays the foundation for business planning. 4. The IMPD is currently undergoing formal business planning to identify users,	Scott Bradford	April 2009 (In Process)

Agency	Recommendation #	Does this affect a federal program?	CFDA # (if previous YES)	Management View	CAP – Corrective Action Plan	Person responsible for CAP	Target Date
	Recommendation #3 continued				operational costs and funding. The Department proposes working closely with this process already in progress.		
61010	Recommendation #4  We recommend the Statewide Interoperability Executive Council in conjunction with the Interoperability Montana Project Directors (IMPD) adopt industry operational best practices for asset management of a statewide interoperable radio communication system.	NO		Do not Concur, but DoA will assist as appropriate.	1. Please see the Governor's Office response.  2. The Department acknowledges that the Statewide Interoperability Executive Council should be an advisory group in this role. Primary responsibility should lie with the IMPD, supported through this Department.  3. The IMPD is currently implementing this process through professional accounting practices and the planned use of the CASM database, with the assistance of this Department, as recorded in the Montana Statewide Communications Interoperability Plan.  4. The Department will continue to support the IMPD through the Public Safety Services Bureau to update the IM best practices document and	Scott Bradford	June 2009

Agency	Recommendation #	Does this affect a federal program?	CFDA # (if previous YES)	Management View	CAP – Corrective Action Plan	Person responsible for CAP	Target Date
	Recommendation #4 continued				solicit feedback from the SIEC.		
61010	Recommendation # 5  We recommend the Statewide Interoperability Executive Council, in conjunction with the Interoperability Montana Project Directors, develop a long-term staffing plan for a statewide interoperability radio communications system.	NO		Do not Concur, but DoA will assist as appropriate.	Please see the Governor's Office response. The Department will work with the IMPD and SIEC to look at options for long-term staffing. This is currently in progress and a draft sustainability plan will be released in the Spring 2009	Scott Bradford	Spring 2009

Kevin Bruskl, IM Executive Director Interoperability Montana 2717 Skyway Drive, Suite E Helena, MT 59602 (406) 202-2863 kwbruski@imt.net



**December 31, 2008** 

Tori Hunthausen Legislative Auditor Division Room 160, State Capitol PO Box201705 Helena, MT 59620-1705

Re: Legislative Audit Division Report No. 08P-03 Dated January 2009

Dear Ms. Hunthausen

Enclosed are the requested responses to recommendations presented in the Legislative Audit Division Report No. 08P-03 "Statewide Radio Communications Interoperability."

On behalf of the IM Project Executive Committee and the Interoperability Montana Project Director's, please allow me to express our appreciation for professional matter with which your office and staff conducted this audit.

The IM Project Executive Committee agrees in part with most of the recommendations. The enclosed responses presents the IM's position, contemplated corrective action, and anticipated timeframe for implementing each recommendation. Implementation has already begun for most of the recommendations as these were already part of the IMPD plans for a successful project and long term use of the system for our States first responders.

Sincerely,

Kevin Bruski

**Executive Director** 

Interoperability Montana

cc: Chief Alan Michaels Sheriff John Walsh Commissioner Joe Brenneman IMPD Board Members

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### **Statutory Governance and Defined Participation**

### Recommendation #1

We recommend the Governor's Office work with related state agencies and local governments to seek revisions to statutes governing radio communications.

- A. Establish a statewide interoperable radio communication system.
- B. Define governance principles, including membership and voting rights.
- C. Identify system participants and addresses the including of existing radio systems.
- A. Interoperability Montana (IM) concurs with this recommendation. The IMPD has invited all state and local agencies to participate. All state and local agencies requiring the use of land mobile communications should be assisted through the Governor's Office to establish a unified statewide interoperable system. Legislative support is a priority if the state supports statewide interoperable radio communications system and the ability for state agencies operate on the system.
- B. Interoperability Montana does not concur in part with this recommendation. The Governance standing committee specifically designed it is so that state agencies would be in the minority. The Governance Committee is looking at increasing the Interoperability Montana Project Directors (IMPD) to a 15 member board with one representative for federal agencies, one for a MACo representative and a third one to be determined. As an example there are two state agencies, Department of Administration, Public Safety Services Bureau (PSSB), and Montana Department of Military Affairs (DMA) that were specifically not given voting privileges as they provide support only and have little if any radio use needs. But both the Montana National Guard (MTNG) and United States Air Force (USAF), while not official members, do have a seat at the Board table. They have input into the decisions the Board makes and the USAF certainly has influence within the Central Consortium. Voting versus non-voting, associate and federal membership is an issue that the Bylaws committee will be addressing. The IM has not incorporated private partners on the Board. This project has always been defined as a public safety project and grant guidance currently does not allow funds to be expended for site improvements that would be a benefit to the private sector. The voting members are those with significant infrastructure, system administrators and utilization needs related to the IM system. The Bylaws will be updated by June of 2009.
- C. Interoperability Montana concurs with this recommendation. The IM is working with other possible participants. The City of Billings is an example of how the project is working to incorporate their system needs into the best solution with the IM project. A solution for the City of Billings should be known early in 2009. The IM will continue identifying future participants and integrate interfaces with existing users.

### **State Agency Participation**

### Recommendation #2

We recommend the Governor's Office, in conjunction with the Department of Administration, work with state agencies to develop a formal migration plan and develop methods to coordinate state resources relative to statewide radio communications interoperability.

Interoperability Montana does concur with this recommendation. The Statewide Interoperability Executive Council (SIEC) should work to get all state and federal agencies under the IM project umbrella. The SIEC should develop a strategy that does allow all state agencies to migrate to the IM statewide interoperable communications system. The IMPD recommends that State agencies need to pool all of their resources to help develop and maintain the IM system. This should include shared infrastructure and technical support.

### **Promoting Operational Success**

#### Recommendation #3

We recommend the Statewide Interoperability Executive Council, in conjunction with the Interoperability Montana Project Directors (IMPD), adopt a formal business planning process, including due consideration of:

- A. Potential system users
- **B.** Annual operation costs
- C. Potential funding sources

A. Interoperability Montana does concurs in part with this recommendation. The primary role of the SIEC is to set technical standards and guidance to interoperability within the State of Montana. This council needs to work with all potential system users and advise them on how they can participate. The IMPD welcomes any potential public safety user onto the system.

C. Interoperability Montana does concur with this recommendation. The annual costs are addressed in the IM Sustainability Plan. This plan has been priority with the IMPD for quite some time and is in it final stages and will be presented to the IMPD in January for their final review and approval. It addresses all of the ongoing annual costs involved with the project and this plan serves as the IM's business plan along with the Statewide Communications Interoperability Plan (SCIP).

C. Interoperability Montana does concur with this recommendation. Within the IM Sustainability Plan there are potential funding sources identified. This is part of the IMPD

business plan and identifies several possible funding sources. This includes user membership fees, state and federal subscriber fees, state legislative appropriations.

### IM Project Lacks Inventory and Long-Term Maintenance Plans for System

### Recommendation #4

We recommend the Statewide Interoperability Executive Council in conjunction with the Interoperability Montana Project Directors (IMPD) adopt industry operational best practices for asset management of a statewide interoperable radio communication system.

Interoperability Montana does concur with this recommendation. The IM sees the role of Statewide Interoperability Executive Council as the group to provide guidance to inventory and long-term maintenance through working to assure state agencies provide the technical assistance as needed. The IM Executive Director is also in the process of discussions with two of the state agencies on how they can provide long term maintenance for the IM Project. IMPD has already been using Project Management staff to gather data and has hired professional accounting services to work on the statewide inventory. The IM Project will be using CASM software, a federal standard to manage the inventory.

### IMPD should Consider Role of Staff Relative to IM Organizational Development.

### **Recommendation #5**

We recommend the Statewide Interoperability Executive Council, in conjunction with the Interoperability Montana Project Director's, develop a long-term staffing plan for a statewide interoperable radio communication system.

Interoperability Montana Project does not concur with this recommendation. The IM sees the role of the SIEC as a support role in ensuring that state agencies that have technical resources that can support the statewide interoperable communication system are providing those resources to the project though a Memorandum of Understanding.

The IM has already identified the staff that will be required to manage and maintain the statewide radio communications system. IM currently has hired the Executive Director and is in the selection process of hiring a System Administrator and Project Managers. As soon as these positions are filled the project will be advertising for a Frequency Manager, Finance Officer and Administrative Assistant. Other positions will be added on a as needed basis as the project advances through the build-out then into the long-term maintenance. All of this is addressed in the Sustainability Plan.